LINCOLN CITY/LANCASTER COUNTY PLANNING STAFF REPORT

P.A.S.#: Special Permit #1968, Prel. Plat #02008 Date: December 21, 2002

The Pioneer Ridge Community Unit Plan

SCHEDULED PLANNING COMMISSION MEETING: DATE: January 08, 2003

NOTE: This is a combined staff report for related items. This report contains a single background and analysis section for all items. There are separate conditions for each individual application.

PROPOSAL: A Community Unit Plan and Preliminary Plat to create 7 lots and 3 outlots.

WAIVER REQUEST: Waivers of subdivision requirements:

26.27.090 street trees,

26.27.070 street lighting,

26.27.080 landscape screens,

26.27.020 sidewalks,

26.23.130 block length.

LAND AREA: 137.44 acres, more or less.

CONCLUSION: This plat does not conform with the 2025 Comprehensive Plan. "Build through" standards, to which urban acreages should be built, have not been developed at this time. This application should be deferred until a policy has been established for those projects that were in process during the adoption of the 2025 Comprehensive Plan.

RECOMMENDATION:	Deferral of the Special Permit
	Deferral of the Preliminary Plat

GENERAL INFORMATION:

LEGAL DESCRIPTION: The Northeast Quarter of Section 12, T9N, R7E, except the South one half of the Southeast quarter of the Northeast Quarter, the South Right of Way of Pioneer Boulevard, and the East Right of Way of South 112 Street, all in the 6th P.M., Lancaster County, Nebraska.

LOCATION: S. 112th Street and Pioneer Byld...

APPLICANT: Brian Carstens and Associates, for

Carrol C. Ketelhut Irrevocable Trust

OWNERS: Carrol C. Ketelhut Irrevocable Trust, Winnona Ketelhut Executrix

2500 South 120th Street

Walton, NE 68461

CONTACT: Brian D. Carstens and Associates

601 Old Cheney Road, Suite C

Lincoln, NE 68512 (402) 434-2424

EXISTING ZONING: AG Agricultural.

EXISTING LAND USE: Agriculture.

SURROUNDING LAND USE AND ZONING:

North: Agriculture, zoned AG South: Agriculture, zoned AG East: Agriculture, zoned AG

West Agriculture and one dwelling unit, zoned AG

ASSOCIATED APPLICATIONS: City Special Permit # 1968 and Preliminary Plat #02008 are related.

HISTORY: Changed from AA Rural and Public Use to AG Agricultural in the 1979 zoning update. A cluster subdivision on the abutting land to the south was recommended for approval by the Planning Commission on June 12, 2002. It was a plat that qualified as being "inprocess" during the development of the Comprehensive Plan.

COMPREHENSIVE PLAN SPECIFICATIONS: The 2025 Comprehensive Plan shows this area as Agriculture, Tier II. This is about 1/4 mile from the Lincoln Future Service Limit, (Tier I). A cluster is permitted by special permit in the AG district. In relation to clustering in the Agriculture area, the Comprehensive Plan states:

"New 'urban acreage' development should only be permitted in Tier II and Tier III area of Lincoln and near towns under higher design standards based upon a "buildthrough" model and without use of sanitary improvement districts. The "build through" design standards should address, along with other items deemed necessary to the study:

 a preliminary plan lot layout that accommodates first phase low density acreages with rural water and sewer systems. The preliminary plat would also show future lot splits as a second phase to permit the urban infrastructure to be built through and urbanization to occur if and when annexed by a city or town is deemed appropriate. The future lot splits will increase density in an urban form and provide income to property owners to defray the increases in city taxes, services and infrastructure costs;

- a lot layout that meets the various elements of the Comprehensive Plan; and
- a development agreement that runs with the land and acknowledges that the acreage development (i) is not entitled to extra buffering protection greater than the acreage property lines from existing agricultural practices and from future urbanization and (ii) waives any future right to protest the creation of lawful centralized sanitary sewer, water and paving special assessment districts or other lawful financing methods at a later date when urbanization is appropriate.

When the independent study to quantify and qualify the positive and negative economics of acreage development is completed, the county should determine if an impact fee or other development exactions are needed to be sure acreage development is paying its "fair share" of costs. The study should include a review of policy issues and options such as the build-through concept, lot size, acreage standards, acreages and town relationships, acreages and sensitive areas, agriculture, acreage clusters, desired acreage population, acreage size and land use consumption and AGR zoning. (page F79)

UTILITIES: There is no public sewer available. This is in the Lancaster County Rural Water District #1. Private wells and waste disposal are proposed.

TOPOGRAPHY: Rolling land, draining to the southeast.

TRAFFIC ANALYSIS: S 112th is a gravel county road. Pioneer Road is a gravel county road shown for future grading and paving in the County Engineer's one and six road program.

PUBLIC SERVICE: This is in the Southeast Rural Fire District, Waverly School District # 145 and Norris Public Power District.

REGIONAL ISSUES: Expansion of the acreage areas. Clustering to preserve farm land. Future city growth and "buildthrough".

ENVIRONMENTAL CONCERNS: None known. The soil rating is 4.25 on a scale of 1-10 where 1-4 is prime soil. This is not prime soil. There are drainage ways through the site. There is no FEMA floodplain shown.

AESTHETIC CONSIDERATIONS: n/a

ALTERNATIVE USES: Continued farming or up to 6 dwellings on 20+ acre parcels.

ANALYSIS:

- 1. This request is for a Special Permit for a Community Unit Plan and a Preliminary Plat for 7 acreage residential lots and 3 outlots. A gravel private street is proposed on one outlot. Outlot 'C' is proposed to remain in farming. Outlot 'A' is for common open space and use.
- 2. This application was submitted on March 18, 2002. The Director's letter of response was sent on April 16, 2002. The re-submittal of this was on December 9, 2002.
- 3. Individual water and sewage disposal are proposed. The submitted ground water report indicates adequate quantity potable water exists.
- 4. This request is in not in conformance with the 2025 Comprehensive Plan.
- 5. The applicant is requesting waivers to, street lighting, street trees, landscape screens, and sidewalks. These waivers are consistent with the rural nature of the subdivision and the provisions of the City/County regulations. The area is not to be annexed by the city at this time. The existing farm land and proposed acreages provide storm water detention equivalent to the Lincoln standards.
- 6. The applicant is requesting a waiver of the block length along the north, east and south of the plat. The waivers are reasonable considering that this is continued farm land and as Outlot "C" is subdivided in the future there will be opportunities to dedicate more streets and reduce the block length.
- 7. The density calculations for the project are as follows;

80.285 acres x 0.055 dwellings/acre = 7.559 dwellings no bonus requested =

Requested 7 units

- 8. There do not appear to be any conflicting farm uses, such as feedlots, in the immediate area.
- 9. The County Engineers letter of December 13, 2002 notes the following;
 - 1) As per the recently adopted Comprehensive Plan, dedication shall be shown on both Pioneer Blvd and South 112th Street to provide a total right of way of 60.00 feet.

- 2) The construction of the return for South 105th Street at Pioneers Blvd. will impact an existing field drive immediately to the west.
- 3) General Note # 14 should be revised to allow only one residential access per lot.
- 10. The Health Department notes the water report quantity and quality is acceptable
- 11. The Public Works review notes;
 - 1. If roadside ditches are used to convey storm water, the extent of the 100 year flow should be calculated to ensure that adjacent property is not impacted. Minimum openings on all properties adjacent to roadside ditches should also be shown.
 - 2. The City of Lincoln requires all culverts under roadways to be designed to convey the 50 year runoff event.
- 12. The 2025 Comprehensive Plan states that new urban acreages in Tier II and Tier III should be built to a "build through" standard. Such a standard has not been developed to date. This project should be deferred until such a policy has been established.

If the Planning Commission chooses to recommend conditional approval of these applications, the following conditions are suggested:

CONDITIONS FOR SPECIAL PERMIT #1968:

Site Specific:

- 1. After the applicant completes the following instructions and submits the documents and plans to the Planning Department office and the plans are found to be acceptable, the application will be scheduled on the City Council agenda: (NOTE: These documents and plans are required by resolution/ordinance or design standards.)
 - 1.1 Make the corrections requested by the County Engineer in his letter of December 13, 2002.
 - 1) As per the recently adopted Comprehensive Plan, dedication shall be shown on both Pioneer Blvd and South 112th Street to provide a total right of way of 60.00 feet.

- 2) The construction of the return for South 105th Street at Pioneers Blvd. will impact an existing field drive immediately to the west.
- 3) General Note # 14 should be revised to allow only one residential access per lot.
- 1.2 Make the corrections requested by the Public Works Department in the letter of December 20, 2002.
 - 1) If roadside ditches are used to convey stormwater, the extent of the 100 year flow should be calculated to ensure that adjacent property is not impacted. Minimum openings on all properties adjacent to roadside ditches should also be shown.
 - 2) The City of Lincoln requires all culverts under roadways to be designed to convey the 50 year runoff event.
- 1.3 Show the farm access to the west on Pioneers Blvd...
- 1.4 Revise the legal description to read "Pioneers" Boulevard in the third line .
- 1.5 Add a note that Best Management Practices (BMP) will be applied for sediment and erosion control.
- 2. This approval permits 7 single family lots.

General:

- 3. Before receiving building permits:
 - 3.1 The permittee is to submit a revised site plan and the plan is found to be acceptable.
 - 3.2 The permittee is to submit six prints and a permanent reproducible final site plan as approved by the City Council.
 - 3.3 The construction plans are to comply with the approved plans.
 - 3.4 The final plat(s) is/are approved by the City.
 - 3.5 The required easements as shown on the site plan are recorded with the Register of Deeds.

- 3.6. The City Council approves associated requests:
 - 3.6.1 Pioneer Ridge Preliminary Plat #02008.
 - 3.6.2 A waiver to the sidewalk, street lights, landscape screen, and street tree requirements since the area is of larger lots, a rural nature and the subdivision will not be annexed.
 - 3.6.3 A modification to the requirements of the land subdivision ordinance\resolution to permit a block length in excess of 1320' along the north, east and south perimeter of this subdivision until such time as Outlot "C" is subdivided.
- 3.7 The County Engineer has approved an agreement for street maintenance.

STANDARD CONDITIONS:

- 4. The following conditions are applicable to all requests:
 - 4.1 Before occupying any new dwelling in this Community Unit Plan all development and construction is to comply with the approved plans.
 - 4.2 Before occupying dwellings in this Community Unit Plan, City/County Health Department is to approve the water and waste water systems.
 - 4.3 All privately-owned improvements are to be permanently maintained by the owner or an appropriately established homeowners association approved by the City Attorney.
 - 4.4 The site plan accompanying this permit shall be the basis for all interpretations of setbacks, yards, locations of buildings, location of parking and circulation elements, and similar matters.
 - 4.5 This resolution's terms, conditions, and requirements bind and obligate the permittee, its successors and assigns.
 - 4.6 The City Clerk is to file a copy of the resolution approving the permit and the letter of acceptance with the Register of Deeds. The Permittee is to pay the recording fee.

CONDITIONS FOR PRELIMINARY PLAT #02008:

Site Specific:

- 1. After the subdivider completes the following instructions and submits the documents and plans to the Planning Department office, the preliminary plat will be scheduled on the City Council agenda: (NOTE: These documents and plans are required by ordinance or design standards.)
 - 1.1 Make the corrections requested by the County Engineer in his letter of December 13, 2002.
 - 1) As per the recently adopted Comprehensive Plan, dedication shall be shown on both Pioneer Blvd and South 112th Street to provide a total right of way of 60.00 feet.
 - 2) The construction of the return for South 105th Street at Pioneers Blvd. will impact an existing field drive immediately to the west.
 - 3) General Note # 14 should be revised to allow only one residential access per lot.
 - 1.2 Make the corrections requested by the Public Works Department in the letter of December 20, 2002.
 - 1) If roadside ditches are used to convey stormwater, the extent of the 100 year flow should be calculated to ensure that adjacent property is not impacted. Minimum openings on all properties adjacent to roadside ditches should also be shown.
 - 2) The City of Lincoln requires all culverts under roadways to be designed to convey the 50 year runoff event.
 - 1.3 Show the farm access to the west on Pioneers Blvd...
 - 1.4 Revise the legal description to read "Pioneers" Boulevard in the third line.
 - 1.5 Add a note that Best Management Practices (BMP) will be applied for sediment and erosion control.
- 2. The City Council approves associated requests:

- 2.1 Special Permit # 1968 for the Community Unit Plan.
- 2.2 A waiver to the detention, sidewalk, street paving, street lights, landscape screen, and street tree requirements since the area is of larger lots, a rural nature and the subdivision will not be annexed.
- 2.3 A modification to the requirements of the land subdivision ordinance to permit a block length in excess of 1320' along the north, east and south perimeter of this subdivision until such time as Outlot "C" is subdivided.

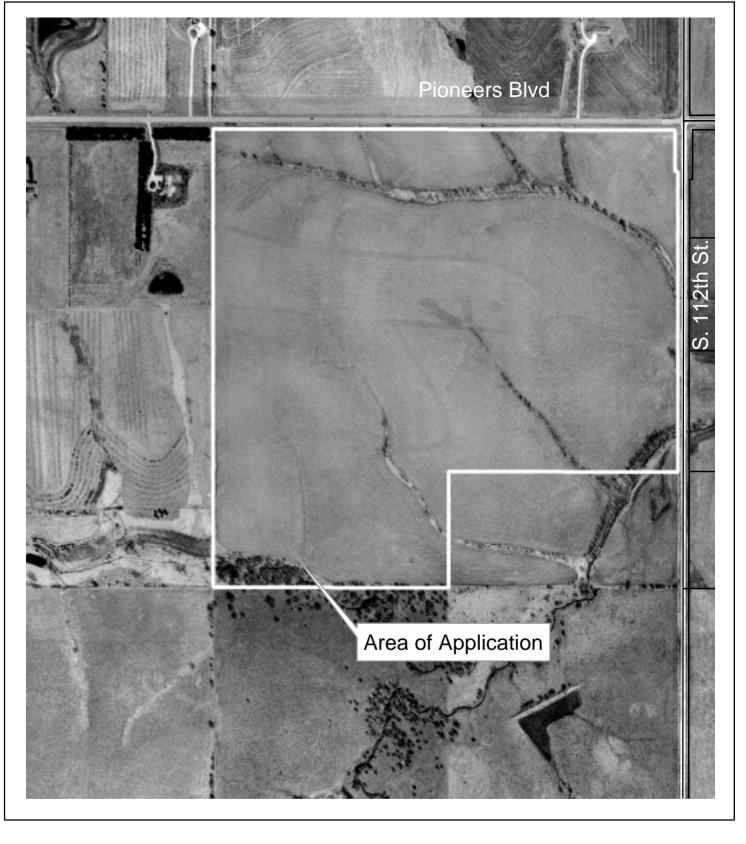
General:

- 3. Final Plats will be scheduled on the Planning Commission agenda after:
 - 3.1 Streets, drainage facilities, temporary turnarounds and barricades, and street name signs have been completed.
 - 3.2 The subdivider has signed an agreement that binds the subdivider, its successors and assigns:
 - 3.2.1 To submit to the County Engineer an erosion control plan.
 - 3.2.2 To protect the remaining trees on the site during construction and development.
 - 3.2.3 To submit to lot buyers and home builders a copy of the soil analysis.
 - 3.2.4 To complete the private improvements shown on the preliminary plat.
 - 3.2.5 To maintain the outlots and private improvements on a permanent and continuous basis. However, the subdivider may be relieved and discharged of this maintenance obligation upon creating in writing a permanent and continuous association of property owners who would be responsible for said permanent and continuous maintenance. The subdivider shall not be relieved of such maintenance obligation until the document or documents creating said property owners association have been reviewed and approved by the City Attorney and filed of record with the Register of Deeds.
 - 3.2.6 To relinquish the right of direct vehicular access to S. 112th Street except four shown farm access and to Pioneer Blvd. except for South 105th Street and three farm access.

- 3.2.7 To maintain County roads until the County Board specifically accepts the maintenance.
- 3.2.8 To comply with the provisions of the Land Subdivision Ordinance/Resolution regarding land preparation.

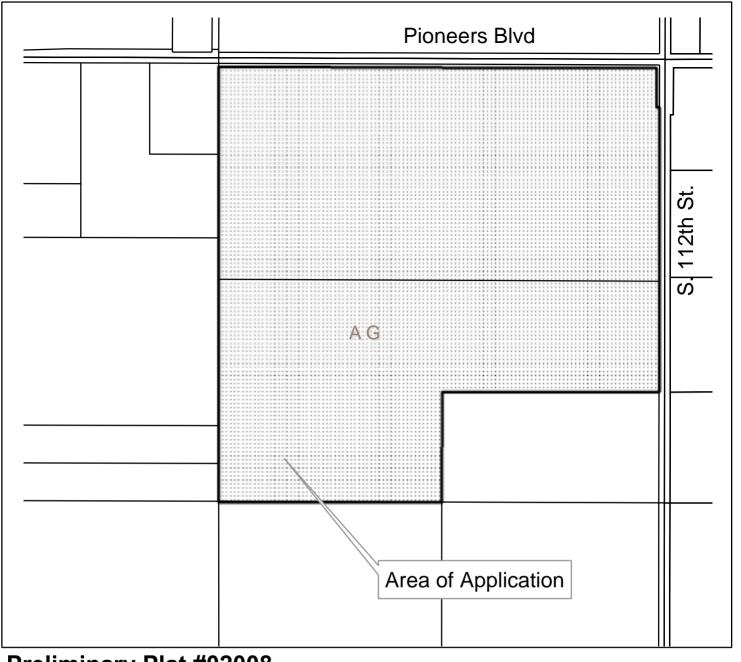
Prepared	by:
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Michael V. DeKalb AICP Planner



Preliminary Plat #02008 Special Permit #1968 Pioneer Ridge S. 112th & Pioneers Blvd.





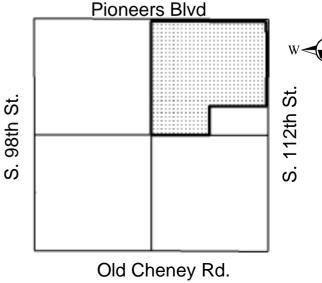
Preliminary Plat #02008 Special Permit #1968 Pioneer Ridge S. 112th & Pioneers Blvd. Zoning:

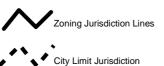
R-1 to R-8Residential District AG Agricultural District AGR Agricultural Residential District R-C Residential Convervation District 0-1 Office District 0-2 Suburban Office District O-3 Office Park District R-T Residential Transition District B-1 Local Business District B-2 Planned Neighborhood Business District Commercial District B-4 Lincoln Center Business District B-5 Planned Regional Business District Interstate Commercial District H-1 H-2 **Highway Business District** Highway Commercial District H-4 General Commercial District 1-1 Industrial District Industrial Park District **Employment Center District**

Public Use District

m:\plan\arcview\02

One Square Mile Sec. 12 T9N R7E





LEGAL DESCRIPTION OF C.U.P./ PRELIMINARY PLAT:

A survey of all of the Northeast Quarter of Section 12 Township 9 North Range 7 East of the Sixth Principal Meridian, except the South one half of the Southeast quarter of the Northeast Quarter, the South right of Way of Poineers Boulevard, and the East Right of Way of South 112th Street; More particularly described by metes and bounds as follows.

Commencing at the East one Sixteenth corner of the Northeast Quarter of Section 12 Township 9 North Range 7 East of the Sixth Principal Meridian, Lancaster County, Nebraska and the POINT OF BEGINNING:

Thence South 00-00-51 West, (an assumed bearing) on the East line of the Northeast quarter of said Section 12, a distance of 659.93 feet to the Northeast corner of the South one half of the Southeast Quarter of the Northeast quarter;

Thence North 89-53-24 West on the North line of the South one half of the Northeast Quarter of the Northeast Quarter a distance of 1326.43 feet, to the Northwest corner of the South one half of the Southeast quarter of the Northeast Quarter;

Thence South 00-02-20 East on the East line of the West one half of the Northeast Quarter of Section 12 a distance of 660.06 feet to the South One Sixteenth Corner of the Northeast Quarter;

Thence North 89-53-43 West, on the South line of the Northeast Quarter a distance of 1325.81 feet to the Center of Section 12;

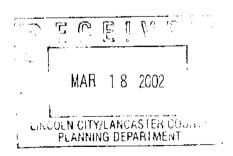
Thence North 00-05-32 West on the West line of the Northeast Quarter a distance of 2590.76 feet to a point 50.00 feet South of the Northwest corner of the Northeast Quarter;

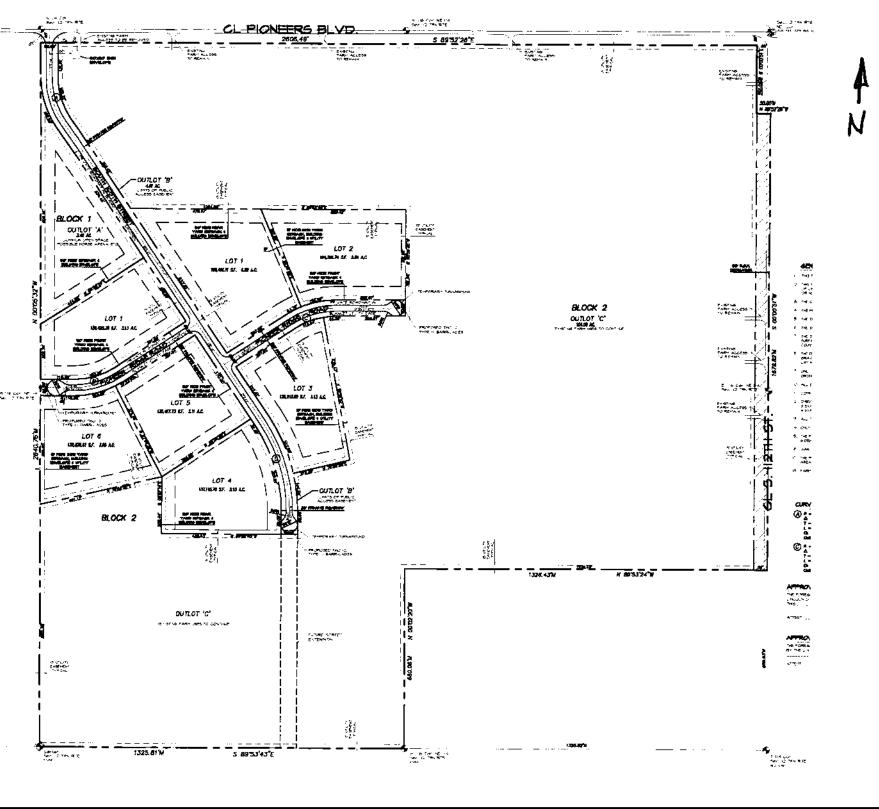
Thence South 89-52-26 East, 50 feet South of and parallel to the North line of the Northeast quarter a distance of 2606.49 feet, to a point on the Easterly Right of Way of South II2th Street;

Thence South 00-00-51 West and parallel to and 50 feet West of the East line of the Northeast Quarter a distance of 250.00 feet;

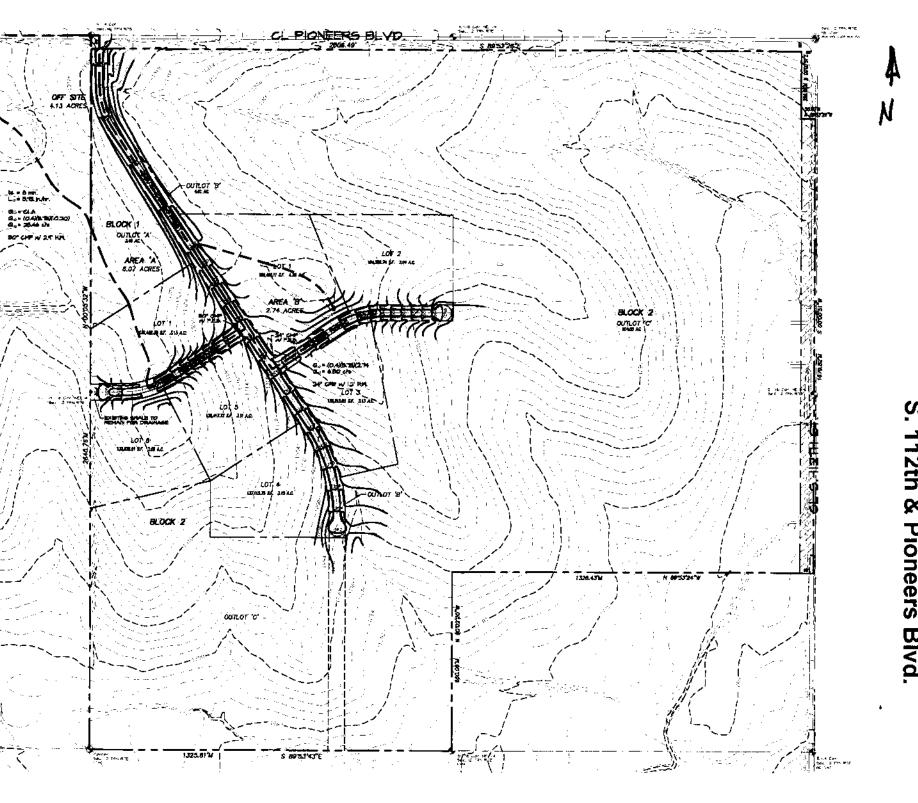
Thence South 89-52-26 East, and parallel to the North line of the Northeast Quarter a distance of 50.00 feet to a point on the East line of the Northeast Quarter;

Thence South 00-00-51 West on the East line of the Northeast Quarter a distance of 1019.87 feet to the POINT OF BEGINNING and containing a calculated area of 5,986,869.97 Square feet or 137.440 acres more or less.

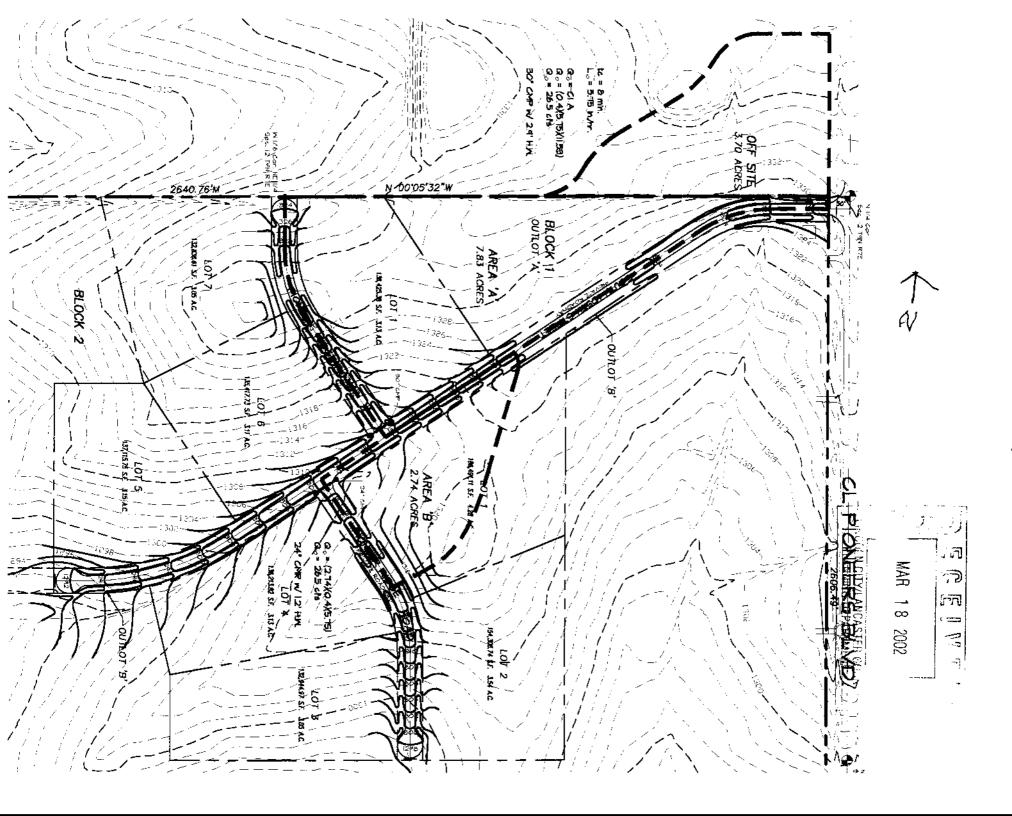




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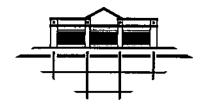


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GENERAL NOTES

- I. THIS PRELIMINARY PLAT/ CU.P. CONTAINS 137,44 ACRES MORE OR LESS.
- 2. THIS PRELIMINARY PLAT/CULP, FERMITS I SINGLE FAMILY LOTS AND 3 OUTLOTS, EACH LOT SHALL CONTAIN A MAXIMUM OF ONE SINGLE FAMILY RESIDENCE AND OUT BUILDINGS, ALL LOCATED WITHIN THE BUILDING ENVELOTES AS SHOWN AND/
- 3. THE CURRENT ZONING IS 'AG' & THE PROPOSED ZONING IS 'AG' WITH CULP.
- 4. THE MAXIMUM SUILDING REIGHT SHALL NOT EXCEED 35 FEET, AS FER 'AG' ZONING.
- 5. THE DEVELOPER / OR OWNER RESERVES THE RIGHT TO BUILD ANYWHERE WITHIN THE BUILDING ENVELOPES SHOWN.
- 6. THE DEVELOPER PROPOSES THE USE OF INDIVIDUAL WATER WELLS FOR POTABLE WATER SUPPLY.
- I. THE DEVELOPER PROPOSES THE USE OF INDIVIDUAL WASTE WATER SYSTEMS. IF PERCOLATION TEST DO NOT PERMIT SUB-SURFACE PIELDS, LAGOONS SHALL BE INSTALLED. WASTE WATER SYSTEMS SHALL BE APPROVED BY THE LANCASTER COUNTY HEALTH DEPARTMENT.
- 6. THE DEVELOPER SHALL CONSTRUCT AND SURFACE THE PRIVATE ROADWAY WITH 3" OF CRUSHED ROCK AND I" OF GRAVEL IN ACCORDANCE WITH THE LANCASTER COUNTY STANDARDS. THE COUNTY SHALL BE NOTIFIED PRIOR TO THE LAYING OF THE GRAVEL. ALL SURFACING RADII AT INTERSECTIONS SHALL BE 30 FEET.
- 9. ONLY ONE SUBDIVISION GROUND SIGN SHALL BE PERMITTED FOR THIS DEVELOPMENT, (27,69 OF THE LINCOLN ZONING ORDINANCE)
- 10. ALL CURVILINEAR DIMENSIONS ARE CHORD LENGTHS.
- II. COMMON AND PUBLIC ACCESS EASEMENTS ARE HEREBY GRANTED OVER THE PRIVATE ROADWAY SHOWN.
- 12. DIRECT VEHICULAR ACCESS TO PIONEERS BOULEVARD IS HEREBY RELINQUISHED EXCEPT FOR SOUTH 105TH STREET, AND 8 EXISTING FARM ACCESSES. DIRECT VEHICULAR ACCESS TO SOUTH 112TH STREET IS HEREBY RELINQUISHED EXCEPT FOR
- 13. ALL TOPOGRAPHIC CONTOURS ARE AT NAVO 88 DATUM.
- 14. ONLY ONE ACCESS SHALL BE PERMITTED PER EACH LOT.
- 15. THE FOLLOWING WAIVERS ARE APPROVED WITH THIS PRELIMINARY PLAT #02008 AND SPECIAL PERMIT #1966: SIDEWALKS, STREET TREES, STREET LIGHTING, LANDSCAPE SCREENING AND BLOCK LENGTH.
- 16. LINK CARS SHALL BE PROHIBITED IN THIS DEVELOPMENT AS NOTED IN FROTECTIVE COVENANTS.
- , IT. THE FUTURE LOT OWNERS, THEIR SUCCESSORS, HEIRS AND ASSIGNS WILL BE ADVISED THAT THIS IS IN A RURAL FARM.
 AREA AND THAT NORMAL AND CUSTOMARY FARM ACTIVITIES ARE NOT A NUISANCE.
- HIB. FARM ACCESSES ARE FOR AGRICULTURAL USES ONLY. ANY OTHER USE WILL FORFEIT AND RELINQUISH THAT ACCESS.



BRIAN D. CARSTENS AND ASSOCIATES

LAND USE PLANNING RESIDENTIAL & COMMERCIAL DESIGN 601 Old Cheney Road, Suite C Lincoln, NE 68512 Phone: 402.434.2424

December 9, 2002

Mr. Marvin Krout
Director of Planning
Lincoln City- Lancaster County Planning Department
555 South 10th Street
Lincoln, NE 68508

RE: PIONEER RIDGE - PRELIMINARY PLAT #02008 & COMMUNITY UNIT PLAN #1968 SOUTH 112TH STREET & PIONEERS BLVD.

Dear Mr. Krout,

On behalf of the Carol C. Ketelhut Irrevocable Trust, Winona Ketelhut Executrix, we are resubmitting the above-mentioned project with the requested changes as per the multiple departments. We have made the following changes that apply to the Preliminary Plat and Community Unit Plan:

- 1.
- 1.1 The existing profile of Pioneers Boulevard has been modified to reflect the grading done in 2001.
- 1.2 The run-off calculations have been corrected for "Area B".
- 1.3 The boundary of drainage "Area A" has been modified. The run-off calculations have also been modified to show the drainage area change.
- 1.4 The contours have been modified to allow drainage adjacent to South 105th Street.
- 1.5 As per conversations with Mike Dekalb this comment should be disregarded.
- 1.6 The length of Pioneer Ridge Road has been shortened to allow the existing swale along the west property line to remain for drainage. The existing drainage swale directs the drainage south along the west property line.
- 1.7 The Drainage and Grading Plan has been modified to call out flared-end sections on the proposed culverts shown.
- 2. (A response is not required)
- (A response is not required)
- 4. Easements have been shown on the Site and Utility Plan.

Page 2

- We have addressed all of County Engineering comments, therefore the Public Works Department comment has been met.
- 6. A letter from Lyle Loth, a licensed engineer, which addresses the storm water detention, is included with this resubmittal.
- 7. One lot has been removed from the southeast corner of the development to reduce the total number of lots to 7, which is the amount of dwelling units allowed for this project.
- 8. Sheet 2 of 3 has been modified to read Drainage and Grading Plan.
- 9. The uses for Outlot 'A' and 'C' have been stated on the plan. Outlot 'A' will be used for common area and possibly a horse arena. Outlot 'C' will continue to be used for farming.
- 10. Note #17 of the General Notes have been revised to include the future lot owners, their successors, heirs and assigns.
- 11. Note #9 references 27.69 of the Lincoln Zoning Ordinance. The sign envelope has been relocated to allow 80 feet from the centerline of both Pioneers Boulevard and South 105th Street.
- 12. The street profiles have been extended at least 300 feet beyond the temporary dead-ends. The profiles now show possible grading for the extension of the roadways.
- 13. Individual water wells will be used. Note #6 of the General Notes have been modified to reflect this change. We have enclosed two copies of the Groundwater Report completed by Vincent Dreeszen.

Please contact me if you have any further questions.

Sincerely,

Brian D. Carstens

cc: Winona Ketelhut Patricia Slaughter Connie Heier

Enclosures: 6 Copies of Sheets 1 through 3 of 3

2 Copies of the Groundwater Report

Storm Water Detention Letter

P.01/01

Memorandum

To: Mike DeKalb, Planning Dept.

From: Bruce Briney, Public Works and Utilities Bold for BB

Subject: Special Permit #02008, Pioneer Ridge

Date: December 20, 2002

cc: Nicole Fleck-Tooze

Randy Hoskins

The City Engineer's Office of the Department of Public Works and Utilities has reviewed the application for Special Permit #02008, Pioneer Ridge, South 112th Street and Pioneers Boulevard. Public Works has the following comments:

- If roadside ditches are used to convey stormwater, the extent of the 100 year flow should be calculated to ensure that adjacent property is not impacted. Minimum openings on all properties adjacent to roadside ditches should also be shown.
- The City of Lincoln requires all culverts under roadways to be designed to convey the 50 year runoff event.

SP02008 sdrn.wpd

<u>Lancaster</u> <u>County</u>

DON R. THOMAS - COUNTY ENGINEER



~s-<u>Engineering</u> <u>Deparlment</u>

DEPUTY- LARRY V. WORRELL COUNTY SURVEYOR

DATE:

December 13, 2002

TO:

Mike DeKalb

Planning Department

FROM:

Larry V. Workell

County Surveyor

SUBJECT:

PIONEER RIDGE

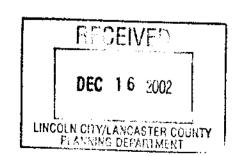
The office has reviewed subject Preliminary Plat and would offer the following comments:

- 1) As per the recently adopted Comprehensive Plan, dedication shall be shown on both Pioneers Blvd. and South 112th Street to provide a total right-ofway of 60.00 feet.
- 2) The construction of the return for South 105th Street at Pioneers Blvd. will impact an existing field drive immediately to the west.
- 3) General Note 14 should be revised to allow only one residential access per lot.

CC:

Dennis Bartels - Public Works

LVW/DP/cm SUBDIV.WK/Pioneer Ridge PP 2 Comments.Mem



PIONEER RIDGE STORM WATER DETENTION

PRE-DEVELOPMENT

This project contains 137.44 acres of contoured row crops with crop residue in good hydrologic condition. Based on the Lancaster County soils map, the site consists of 73% Type B soils (Sharpsburg, Judson, Colo-Nodaway, Nodaway and Morrill), 24% Type C soils (Wymore and Mayberry) and 3% Type D soils (Pawnee). The resulting Curve Number is CN 76.

POST-DEVELOPMENT

After development, the project will contain 33.39 acres of 3-4 acre residential home sites. The remaining 104.05 acres will continue to be farmed.

Based on the same percentages of soil types, the Post-Development Curve Number will be

Developed Area (33.39 acres)

CN 68

Farmed Area (104.05 acres)

CN 76

Total Post-Development

CN 74

With a lower Curve Number the Post-Development discharge will be less than the Pre-Development discharge and the requirement for Storm Water Detention will be satisfied.

Prepared By:

Lyle L. Loth

Licensed Engineer

GROUNDWATER REPORT

PIONEER RIDGE NE1/4 sec 12-T.9N.-R.7E. less the S1/2 SE1/4

LANCASTER COUNTY

Petitioner: Brian D. Carstens & Associates
Developer and Owner of Record:
Carrol C. Ketelhut, C/o
Winona A. Ketelhut, Executrix

Report prepared by:
Vincent H. Dreeszen
Groundwater Consultant and
Professional Geologist
4811 Sinclair Ct.
Lincoln, NE 68516

November 21, 2002

DEC - 9 2002

Report of Groundwater Investigation

Pioneer Ridge

NE1/4 sec 12-9N-7E less the S1/2 SE1/4 Lancaster County

Pioneer Ridge is a Community Unit Plan at S. 112th Street and Pioneers Blvd. The plan proposes the development of 8 single family lots ranging in size from about 3 acres to 4.5 acres. The location of the lots is near the center of the west one-half of the NE1/4 sec 12-9N-7E (See Figure 1). The remainder of the 137.44 acres is in 3 outlots, A, B, and C. Initial access to the development is from Pioneers Blvd. which is the north boundary of the proposed development. The east boundary is N. 112th Street.

There are no existing wells on the property. The logs of wells in the area including that of a well at an abandoned home site on the property along N. 112th Street are summarized in the accompanying table. The location of the wells is shown in Figure 2. The well depths referred to mean sea level, aquifer intervals and thicknesses, reported and potential yield of wells and depths, and dates and depths to water are shown. A copy of the inorganic chemical quality analyses (well number 1) is included in this report.

The area was visited in the field to determine location of wells and to estimate the ground altitude of wells from the Walton 7.5-degree USGS topographic map (also source of Figure 2).

Ground elevations are estimated to be plus or minus 5 feet.

The area is located in the dissected glacial hill terrain with drainage northeastwardly to Stevens Creek. The lots are located in the sloping uplands on the higher ground of the property.

The only known aquifer in the area is sandstone of the Dakota Formation of Cretaceous age. Both the top and the base of the Dakota are eroded surfaces. Loesses and glacial deposits

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Dakota. The Dakota is rather intensively developed for individual family water supply to the north of Pioneers Blvd. and to the west of N. 98th Street. Large capacity wells of several hundred gallons per minute have been developed for irrigation at HiMark and Firethorn golf courses and for housing developments.

The base of the Dakota compared to mean sea level generally range from about 1080 to 1095 feet. However, the underlying Permian limestones and shales are higher in elevation to the east and southeast. As an example, at Well number 6 in the southeast corner of section 12, the Permian bedrock is at 1201 feet above msl or about 100 feet higher than in Pioneer Ridge.

The thickness of water-saturated sandstone ranges from 15 to more than 65 feet in wells 1 through 5. Saturated thickness (static water level to base of aquifer) ranges from about 75 to more than 100 feet. All available information suggests the potential for an adequate quantity of water to meet individual home use is excellent.

The inorganic chemical quality of water is expected to be similar to that from other Dakota sandstone wells in Lancaster County. A copy of the water quality analysis from Well number 1 is included as part of this report. The concentrations of chloride (12 mg/l) and of sodium (79.1 mg/l) are quite low compared to elsewhere in the county. Total dissolved solids are high (852 mg/l) and the water is quite hard (520 mg/l). Sulfate is relatively high as it is in some other parts of Lancaster County (330 mg/l). Iron is also predictably rather high (0.66 mg/l), although manganese is relatively low (0.12 mg/l). The water is a Calcium-Sulfate-Bicarbonate type. The higher lying Permian bedrock may be influencing the concentration of sulfates. It is probable that the concentration of total dissolved solids and sulfate increases with depth of well.

In summary, the adequacy of water is excellent for wells in the proposed development.

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PLANDING DEPARTMENT

Since the water in the Dakota is confined it is expected that some head loss, ie lower pumping water levels, may occur seasonally as the result of pumping large capacity wells in the area.

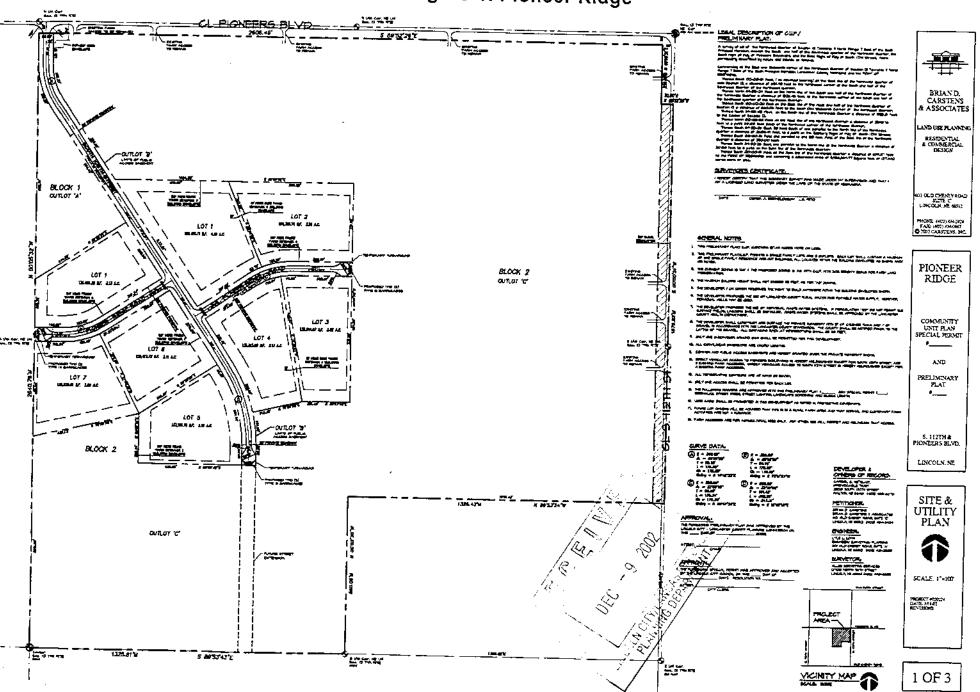
Pumps should be set sufficiently deep to account for the head loss.

The water quality is potable and it is likely that water in the proposed development will be somewhat less mineralized than in Well number 1. Nitrate-Nitrogen was reported to be 3.1 mg/l and it is expected that level will also be less in wells in the proposed development.

Although the water is potable most home owners will opt to condition the water for household use.



Figure 1. Pioneer Ridge



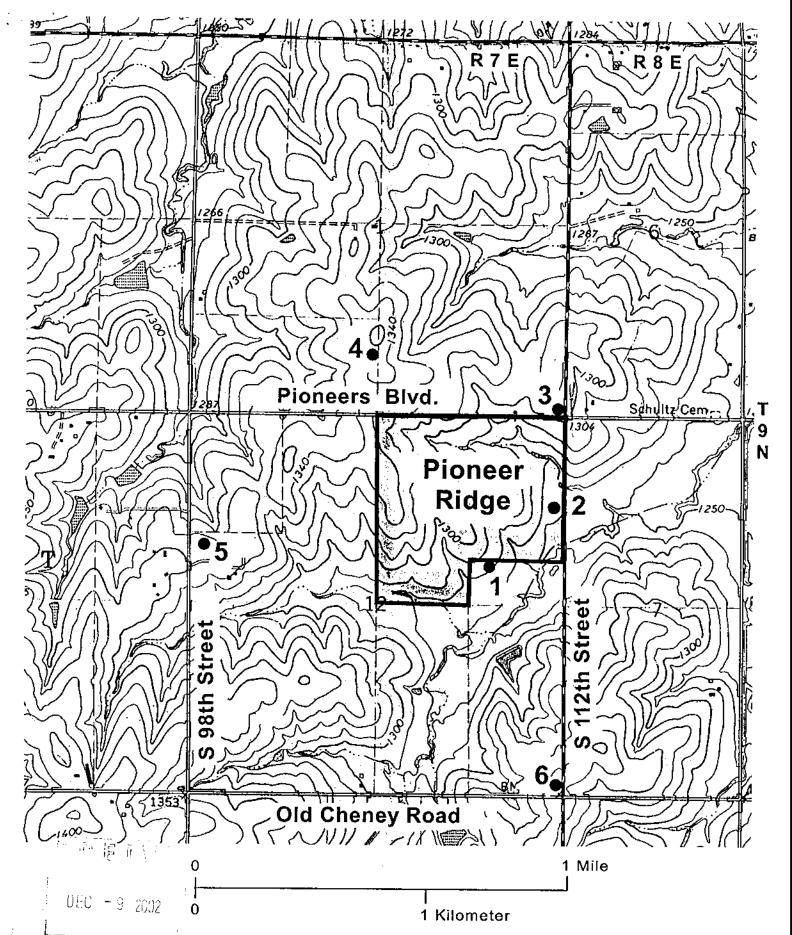


Figure 2 Map showing location of Pioneer Ridge Community Unit Plan and location of selected wells by number and symbol. Well summaries in table.

Table Pioneer Ridge Summary of Well Information in Area

Well Number	Estimated Ground Altitudes (msl)	Well Depth		Aquifer Intervals	(R)eported or				
		In Feet	Referred to msl	Aquifer Intervals and Thickness in Feet ()	(P)otential yield in gpm	Depth to SWL		Notes	
1		204		sdst 150-170, 190 to 204 (34)	(R) 100 (P) 150	97	04/05/02	Coarse sandstone and grave 208 to 211', water quality analyses	
2	1265	170	1095	sdst 150-156, 158-164, 167-170 (15)	(R) 25 (P)	95	10/17/79	Abandoned farmstead	
3	1305	220	1085	sdst and shale 102-220 (50)	(P) 50	59	01/13/64	Stevens Creek Test Hole SC64-16 City of Lincoln, sdst mostly fine grained	
4	1345	250	1095	sdst 175-205, 214-228, 238-250 (56)	(R) 10 (P) 100	165	06/26/96	Base of Dakota 260'	
5	1345	257	1088	sdst 162-227 (65)	(R) 20 (P) 70	151	11/17/95		
6	1342	139	1202	no sand or sdst (0)	(P) 0	Perched	1	Test Hole 1-B-49, Conservation and Survey Division, UNL, Permian limestone at 139'	

Notes: Well locations shown on Figure 2 gpm = gallons per minute SWL = static water level

HUV 05 '02 11:25AM NE STATE HEALTH LAB Nebraska Health and Human Services Regulation and Licensure - Laboratory Services 3701 South 14th Street Lincoln, NE 68502 (402) 471-2122 (402) 471-2080 (fax)

Laboratory Report Printed on: NOV-05-02

CARSTENS&ASSOC CARSTENS AND ASSOCIATES

WELL 4/ SW. SE. SE 12-9N-7F

601 OLD CHENEY ROAD, SUITE C LINCOLN, NE 68512

Laboratory Analysis For: 13 PARAMETER

Sample Comments:

NO TEST NA; FE; MN; TURBIDITY >1 NTU

Laboratory Number: P19888-51

Date Collected: 15-Aug-2002 07:40 AM

Sampled By:

Location:

BRIAN CARSTENS SEC 12-9-7

Date Received: 16-Aug-2002

See reverse side of report for description of aeronyms and data qualiflers For inquiries on result interpretation call: (402) 471-2541.

Parameters	Test Results	Qual	Report Level	ยทีกป	Method	Prep Date	Analysis Date	Analys
Alkalinity, Total	356.		20	rng/l	2320B	T	08/21/02	JN
CALCIUM	206.	_	.15	mg/l	SM31118		08/19/02	SH
Chloride	12.		1	mg/L	4500CL-E	<u> </u>	08/22/02	km
Nitrale+Nitrite (As N)	3.1	- -	.05	mg/l	353.2	 	<u> </u>	
Fluoride	0.33	-	.2				08/16/02	km
IRON		 F		mg/i	4500F-C		08/15/02	km
Hardness, Total	0.66		50	M19/i	236.1			
MANGANESE	520.		. 4	mg/l	2340C .		08/19/02	SH
	0.12	F	1	ING/I	200.8		 -	
SODIUM	79.1	F	10	mg/l	SM3111B			
)H	7.07	+ +		pH	150.1		08/19/02	SH
SULFATE	330.	1 40	10	mg/l	EPA 375,4			
OTAL COLIFORM	0.0		0	of∪/10€			08/26/02	JN
. COLI	0.0				9223B-QT		08/16/02	JN
olids, Total Dissolved (Tds)	<u> </u>		0	:fu/100	9223B-QT		08/16/02	JN
	852.	A	10	mg/l	160.1		06/16/02	JР

Analysis Report Remarks:

PLANNING DEPARTMENT

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT INTER-OFFICE COMMUNICATION

TO: Mike DeKalb DATE: December 24, 2002

DEPARTMENT: Planning FROM: Chris Schroeder

Jerry Hood

ATTENTION: DEPARTMENT: Health

CARBONS TO: Bruce Dart, Director SUBJECT: Pioneer Ridge Resub

PP #02008 CUP

#1968

EH Administration

EH File

The Lincoln-Lancaster County Health Department (LLCHD) has reviewed the resubmittal for the proposed Pioneer Ridge development with the following items noted:

- It is noted that a complete groundwater report accompanied the subdivision report this time. The report indicates a more than adequate supply of groundwater. This answers the LLCHD's question regarding water supply for the proposed subdivision.
- The remaining comments in a memo submitted to your office on March 28, 2002 regarding the proposed Pioneer Ridge are still relevant.